

## Abstract

A ruggedized analog front-end for interconnecting a network communicative device to a two-conductor based network operable in a train-like or other harsh environment. The front-end has a coupling circuit having first and second coupling channels providing isolation, impedance matching and energy transfer between a common mode filter circuit connectable to the two-conductor based network, and an amplifier and an attenuator respectively connectable to output and input of the network communicative device. The front-end has a power supply circuit for operative power supply of electronic components of the analog front-end.